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Application No. 10/620,458
Amendment dated October 2, 2006
After Final Office Action of June 30, 2006

OCT 02 2006

Docket No.: 0941-0791P

REMARKS

Claims 1-3 are now present in this application.

Claims 1-3 have been amended. Reconsideration of the application, as amended, is respectfully requested.

Claims 1-8 stand rejected under 35 USC 102(b) as being anticipated by Hirose et al., JP 10-047920, in view of Sano et al., JP 08-035828. This rejection is respectfully traversed.

Independent claim 1 of the present application discloses a method for calibrating a laser three-dimensional digitizing sensor. The method comprises two main steps:

1) translating the calibrating surface along the Z axis *to establish a first mapping table* of a two-dimensional digital image to the Z coordinate; and

2) rotating the calibrating surface by a predetermined first angle along the Y axis then translating along the Z axis to establish a second mapping table to the X coordinate *according to the first mapping table*.

The Examiner's attention is drawn to the fact that the second mapping table to the X coordinate in claim 1 is established from the first mapping table to the Z coordinate. Hirose, however, teaches that the mapping table to the X coordinate, the mapping table to the Y coordinate and the mapping table to the Z coordinate are established *independently*.

With particular reference to paragraphs 0015 and 0030 in Hirose, calibrations for the X coordinate, Y coordinate and Z coordinate must be based on the original point. The relative distance in the Z axis is used to obtain the X coordinate (see paragraph 0025, for example). In other words, the X coordinate is obtained *without knowing the absolute Z coordinate*, as is the Y coordinate. In not knowing the absolute Z coordinate, Hirose must take a large amount of data to

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calculate the absolute X coordinate, i.e., at least as twice the application for +30° and -30° measurements.

In independent claim 1 of the present application, however, the first mapping table to the Z coordinate is obtained first and the absolute Z coordinate is known. Next, the second mapping table is established from the previously established first mapping table, and therefore less data is needed. Similarly, as set forth in claim 2, the third mapping table is established from the previously established first mapping table, and as set forth in claim 3, the second mapping table is established from the first mapping table.

The secondary reference to Sano et al. fails to overcome the above-noted deficiencies.

The method of independent claim 1 is therefore neither taught nor suggested by the prior art utilized by the Examiner. Reconsideration and withdrawal of the 35 USC 102 rejection are respectfully requested.

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning this document are considered necessary at this time.

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

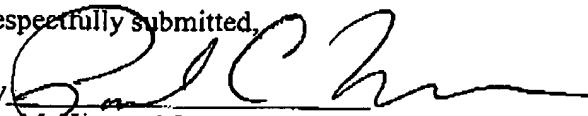
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: October 2, 2006

Respectfully submitted,

By 

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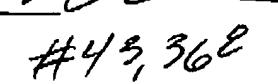
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